PCN19

COLORECTAL CANCER PATIENTS IN THE VETERAN POPULATION: A HEALTH CARE COST AND UTILIZATION ANALYSIS IN THE UNITED STATES

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OBJECTIVES: To assess the clinical and economic burden of colorectal cancer in the US veteran population. **METHODS:** A retrospective study (October 01, 2005 to September 30, 2010) was conducted using the Veterans Health Affairs Medical SAS Datasets. Patients diagnosed with colorectal cancer were included in the study. Health care resource utilization and costs were assessed in the 12-month follow-up period. Patients' demographic, clinical and discharge statuses were compared using Chi-square testing and standardized differences. Student t-tests were used for the means of continuous variables. Mortality and survival rates were calculated using the Kaplan and Meier method and the PROC LIFETEST procedure. **RESULTS:** In patients diagnosed with colorectal cancer (n=92,494) in the total mortality rates in the 12-month follow-up period were 33.11% (n=28,716), with 52.72% for patients age 39 and under, 25.53% for patients age 40 to 64, and 35.81% for patients age 65 and above. The most commonly ordered laboratory tests were sodium (4.12%), potassium (4.07%), glucose quant (3.97%), chloride (3.93%) and creatinine (3.87%). The average number of inpatient visits (0.58), emergency room (ER) (0.37), physician office (28.55) and outpatient visits (28.89) were calculated for colorectal cancer patients per patient, separately. We also calculated the percentage of inpatient (29.33%), ER (17.86%), physician office (99.74%) and outpatient visits (99.78%). Patient expenditures for inpatient visits ($12,032), ER ($139), physician office ($8,728) and outpatient visits ($9,005) were also computed. **CONCLUSIONS:** Based on currently available data, this analysis suggests that despite a standard mortality rate increase with patient age, the highest mortality rate for colorectal cancer patients in this population occurs among patients under age 40.

PCN20

ANALYSIS OF USING TRASTUZUMAB FOR THE TREATMENT OF ADVANCED GASTRIC CANCER WITH HER2 POSITIVE

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OBJECTIVES: To analyze which alternative treatment for advanced gastric cancer with HER2 positive gives a better outcome in terms of life years gained (LY gained). **METHODS:** An analysis of effectiveness using as outcome measure overall survival by a Markov model with 3 stages: progression-free, progression and death, as alternatives to taking trastuzumab plus chemotherapy (capecitabine/fluorouracil and cisplatin), epirubicin + cisplatin + fluorouracil (ECF), cisplatin + capecitabine + epirubicine (ECX), epirubicin + oxaliplatin + fluorouracil (EOF) and epirubicin + oxaliplatin + capecitabine (EOX). The outcome was LY gained. The effectiveness was obtained through survival curves of Kaplan-Meier overall survival for patients with advanced gastric cancer and overexpression of HER2 obtained from ToGA (Bang et al 2010). The time horizon considered in the model was 8 years (96 months). This time horizon was also in the TA 208 evaluation appraisal of trastuzumab as first-line treatment of the NICE. **RESULTS:** The treatment of trastuzumab + chemotherapy proved more effectiveness than all other treatment options. Trastuzumab generates 1.33 LY gained (life years) versus 1.04 of the chemotherapies with capecitabine (ECX and EOX) and 0.92 of the chemotherapies with fluorouracil (ECF and EOF) in HER2 positive patients. **CONCLUSIONS:** Trastuzumab treatment for HER2 positive advanced gastric cancer proved to be the alternative with more LY gained in comparison to all treatment options considered in this study.

PCN21

IMPACT OF ANTICHOLINERGIC LOAD OF MEDICATIONS ON THE LENGTH OF STAY OF CANCER PATIENTS IN HOSPICE CARE

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OBJECTIVES: Anticholinergic medications are effective in the symptom control of advanced cancer patients. However, use of these medications has been associated with increased risk of side effects, which might lead to premature mortality. Accordingly, the study was conducted to examine the effect of increasing anticholinergic load on the length of stay (LOS) of cancer patients in hospice care. **METHODS:** 2007 NHHCS was used as the data source. Cox Proportional Hazards Model was used to investigate the risk of death among users of moderate and high anticholinergic load compared with users of low anticholinergic load in presence of other prognostic factors. Patients who were discharged alive and whose discharge status was unknown were censored. Data Analysis was performed using SAS version 9.1. **RESULTS:** Of the 4109 patients receiving hospice care in 2007, 43.8% patients suffered from a cancer diagnosis. Cancer patients (n = 1801) on moderate anticholinergic load had 12.7% lower hazard of death ($p = 0.0244$) while those on high anticholinergic load had 15.6% lower hazard of death ($p = 0.0071$) as compared to those patients on low anticholinergic load. Among other prognostic factors, non-elderly age group (HR 1.33; $p < 0.0001$), male gender (HR 1.17; $p = 0.0019$), white race (HR 1.44; $p = 0.0005$), metropolitan agency (HR 1.17; $p = 0.0039$), non-profit agency (HR 1.23; $p = 0.0029$), severe ADL dependency (HR 1.63; $p < 0.0001$) and cognitive impairment (HR 1.12; $p = 0.0358$) were significantly associated with higher hazard of death. **CONCLUSIONS:** The results suggest that increasing anticholinergic load does not harm cancer patients using hospice care. The protective effect of increasing anticholinergic load on the LOS might be due to their clinical appropriateness in the palliation of symptoms in advanced cancer patients. Future studies need to evaluate the effect of increasing anticholinergic load on the quality-of-life of advanced cancer patients.

PCN23

INCIDENCE OF METASTATIC HORMONE RECEPTOR POSITIVE (HR+) BREAST CANCER IN THE UNITED KINGDOM (UK): DATA NEEDED!

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OBJECTIVES: In 2008, breast cancer accounted for 16% of cancer deaths in British women. Although early stage breast cancer is treatable, prognosis for metastatic breast cancer (mBC) cancer patients is poor. Information on incidence of HR+ mBC in the UK is not readily available, as data on stage was not collected by cancer registries until 2008. In this study, we estimate the incidence of HR+ mBC in the UK. **METHODS:** Data reported by the International Agency for Research on Cancer was used to estimate breast cancer incidence for 2008. Values were cross-checked with Cancer Research UK. We then estimated the number of patients that were likely to be HR+ and the number that were likely to progress to metastatic disease using data from published literature and from the National Institute for Health and Clinical Excellence. Surveillance, Epidemiology, and End Results data were used to further cross-check values. **RESULTS:** It is estimated that of 46,458 incident breast cancer patients per annum in the UK (89 per 100,000), 34,834 are HR+ (75%). Based on 17 regional registries in the US, 1761 women were reported to be HR+ with metastatic disease (63.5% of mBC cases) in 2008. Most literature-based values estimate that up to 50% of breast cancer patients progress to metastatic disease. Based on this assumption, among UK HR+ cases, an estimated 17,421 will likely progress to metastatic disease (50% of HR+ cases or 37.5% of incident breast cancer cases). **CONCLUSIONS:** There is a large gap in the literature on the incidence and prevalence rates of HR+ mBC in the UK. Our estimates revealed that most newly diagnosed breast cancer in the UK is HR+, and about half will progress to metastatic disease. The large number of HR+ mBC patients in the UK represents a significant clinical and health care burden.

PCN24

EPIDEMIOLOGY OF THE NON-HODGKIN LYMPHOMA COLOMBIA 2000-2011

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OBJECTIVES: Review the Non-Hodgkin lymphoma (NHL) in the last 10 years and its epidemiological behavior in Colombia. **METHODS:** We conducted a systematic review of the literature on behavior and treatment of NHL (2000-2011), in PubMed, EBSCO, Science Direct and Cochrane; employing combined MeSH terms with the mean descriptor Non-Hodgkin Lymphoma. To determine the epidemiological behavior of the disease reviewed the Cancer Registry of Cali, deaths according to vital statistics of DANE (ICD-10, C82-C85), GLOBOCAN records and Mortality Atlas Cancer in Colombia 2002-2006. **RESULTS:** In the period 2001-2005, the estimated incidence rate for NHL was 10.5 in men and 7.8 women per 100,000 per-year. The incidence rate is multiplied almost 10 times between 45 and 49 years old, until 25 times between 65 and 69 years and 30 times after 80 years of age. In 2000-2008, the mortality rate was 1.87 per 100,000, it was: 2.11 in men and 1.63 in women per 100,000, for a male: female ratio of 1.26. The median age of the disease to Colombia is 56 years. In 2006, the NHL was ranked eleventh in mortality in our country. Among males was the tenth leading cause of death, and in women, the twelfth. **CONCLUSIONS:** The NHL mortality rate in the period 2000-2008 shows a slight upward trend, especially in the years 2005 and 2008. In Colombia, the increased risk of death in men compared to women, the distribution of deaths by age group, with peaks in young adults (15-44 years) and seniors (+65 years) - and the geographical distribution has the highest mortality in the central region (area of industrial activity) promote occupational scenarios. The treatment of NHL has advanced significantly in the last decade, with high mortality neoplasia became a curable type of cancer in a high proportion of patients.

PCN25

EFFECT OF TREATMENTS FOR LATE-STAGE PROSTATE CANCER ON SURVIVAL

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OBJECTIVES: This study examined the relative effectiveness of treatments increasing the survival time for late-stage prostate cancer. **METHODS:** Cox proportional hazard regression model was used to assess overall survival in relation to various treatments adjusting for confounding factors. Survival time was calculated from the date of initial diagnosis to the last day of contact. Patient demographics, type of health insurance stage, and grade of the tumor were extracted from Florida Cancer Data System. Socioeconomic factors were extracted from Census 2000. The types of co-morbidity were formulated following the Elixhauser Index. The Census 2000 and Florida Agency for Health Care and Administration datasets were linked with the Florida Cancer Data system for the time between October 1, 2001 and December 31, 2007 with survival being measured through October 31, 2008. **RESULTS:** A total of 4336 men who had late-stage prostate cancer in Florida were analyzed. The average age at the time of diagnosis was 65 and the average survival time was 253 days. Among patients who had late-stage prostate cancer, 59 percent received surgical treatment only. The log-rank and Wilcoxon tests indicated that there were significant differences in survival time by treatment options. The cox proportional hazard regression result showed that patients who had received radiation only, hormone only, and those who had chosen active surveillance were at a higher risk of having shorter survival time than those who had received surgery only. The existence of one or more co-morbidity, being diagnosed at an older age, and being